

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 12

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte DAVID WINDSOR RILLIE

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Appeal No. 2001-2382  
Application No. 09/376,461

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ON BRIEF

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Before COHEN, ABRAMS, and NASE, Administrative Patent Judges.  
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-4 and 6-9.<sup>1</sup>

We REVERSE.

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<sup>1</sup>Claim 5 was canceled by the appellant after the final rejection, and claims 10-15 were withdrawn as being directed to a non-elected invention

### BACKGROUND

The appellant's invention relates to a tubular skylight (claims 1-4) and to a roof flashing (claims 6-9). An understanding of the invention can be derived from a reading of exemplary claims 1 and 6, which have been reproduced below.

#### *The Representative Claims*

1. A tubular skylight comprising:  
a seamless metal flashing;  
a transparent dome engageable with the flashing; and  
at least one skylight tube depending downwardly from the flashing.
6. A metal roof flashing, comprising:  
a hollow frusto-conical shaped curb defining a bottom end;  
a metal skirt extending radially away from the bottom end, the skirt being formed with at least one surface strengthening anomaly.

#### *The Applied Prior Art*

Hoy <u>et al.</u> (Hoy)	4,549,379	Oct. 29, 1985
DeBlock <u>et al.</u> (DeBlock)	5,655,339	Aug. 12, 1997
Chao <u>et al.</u> (Chao)	5,896,713	Apr. 27, 1999
Blackmon <u>et al.</u> (Blackmon)	5,956,191	Sep. 21, 1999 (filed May 1, 1998)
Streiter	6,044,592	Apr. 4, 2000 (filed May 13, 1998)

#### *The Standing Rejections*

- (1) Claims 1-4 and 6-9 under 35 U.S.C. § 102(e) as being anticipated by Chao.
- (2) Claim 1 under 35 U.S.C. § 103(a) as being unpatentable over DeBlock in view of Hoy and Streiter.
- (3) Claims 2-4 and 6-9 under 35 U.S.C. § 103(a) as being unpatentable over DeBlock in view of Hoy, Streiter and Blackmon

### OPINION

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the Answer (Paper No. 9) for the examiner's complete reasoning in support of the rejections, and to the Brief (Paper No. 8) and Reply Brief (Paper No. 10) for the appellant's arguments thereagainst.

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

#### *The Rejection Under Section 102*

Anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention. See, for example, In re Paulsen, 30 F.3d 1475, 1480-1481, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994) and In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

Independent claim 1 and dependent claims 2-4 stand rejected as being anticipated by Chao. There is no dispute that Chao discloses a tubular skylight comprising a metal flashing, a transparent dome engageable with the flashing, and a skylight tube extending downwardly from the flashing. It is the examiner's opinion that the flashing is seamless since Chao has not stated otherwise in the specification and no seam is shown in the drawing. The appellant, who is one of the inventors of the Chao device, urges that the reference does not support such a finding on its face (Brief, paragraph bridging pages 3 and 4).

Chao does not state in the specification whether or not the flashing is seamless. Contrary to the conclusion reached by the examiner, it is our opinion that in the absence of explanation in the specification, the drawings do not provide sufficient evidence from which to conclude that the flashing is seamless, and cannot be relied upon as the sole basis for this conclusion. In fact, it could be argued that there is a seam at the point of joinder of the curb and the skirt, for a line is present there in the drawing. It not being clear that this requirement is disclosed or taught by Chao, we will not sustain the Section 102 rejection of claim 1 or, it follows, of claims 2-4, which depend therefrom.

Independent claim 6 also stands rejected as being anticipated by Chao. Claim 6 requires the presence of a surface strengthening anomaly in the flashing. In this rejection, the examiner has taken the position that Chao does disclose a seam in the

flashing, that the seam is welded, and that the weld constitutes a “surface strengthening anomaly.” We first point out that even if one were to consider that there is a joint between the flashing curb and skirt, there is no evidence from which to conclude that the seam is welded. Moreover, even if it were a welded seam, in the absence of supporting evidence it cannot be concluded that by its mere presence the seam constitutes a “strengthening anomaly” rather than, for example, a weakened point. The Section 102 rejection of claims 6-9 therefore cannot be sustained.

*The Rejections Under Section 103*

The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

The first of the Section 103 rejections is that claim 1 would have been obvious on the basis of DeBlock in view of Hoy and Streiter. It is the examiner's view that DeBlock discloses all of the subject matter recited in claim 1 except for the seamless construction of the flashing and that the flashing be of metal. However, the examiner opines that it would have been obvious to one of ordinary skill in the art to make the flashing seamless in view of the teachings of Hoy, and further to make it of metal in view of those of Streiter. The appellant counters by providing several reasons why a prima facie case of obviousness is lacking (Brief, pages 4 and 5).

DeBlock discloses a skylight assembly comprising a flashing, a transparent dome engagable with the flashing, and a skylight tube depending from the flashing. DeBlock is silent as to the material from which the flashing is made. It is our view that one of ordinary skill in the art would have known<sup>2</sup> that leakage between the curb and flange portions of DeBlock's skylight flashing would be detrimental to the proper operation of the device and therefore would have provided that the elements be attached to one another in such a manner as to prevent leakage at the points of joinder, that is, that the elements be integral with one another. However, the fact that the flashing components are integral with one another does not establish that this attachment occurs without the presence of a seam, for the desired integrity could be

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<sup>2</sup>Skill is presumed on the part of the artisan, rather than the lack thereof. In re Sovish, 769 F.2d 738, 226 USPQ 771 (Fed. Cir. 1985).

established by welding the seams. Thus, DeBlock falls short of disclosing or teaching that the flashing is seamless, or that it is made of metal, both as required by claim 1.

Hoy discloses a skylight assembly and is concerned with leak-proof construction of the flashing (curb unit 45; see column 1, lines 52-55; column 3, lines 47-49). In this regard, Hoy teaches that “the curb unit 45 [Figure 3] is produced by vacuum forming a sheet of semi-rigid plastics material such as vinyl, and includes a frame-shaped curb portion 46 which integrally connects a laterally or downwardly projecting rectangular mounting flange portion 52” (column 2, lines 57-63). It is our opinion that one of ordinary skill in the art would have been taught by Hoy that the DeBlock flashing could be formed from a single piece of seamless vacuum formed plastics material, but not that it be made of metal, much less seamless metal.

The examiner then looks to Streiter, which is directed to “a support, generally referred to as a ‘curb,’ for placement upon the roof of a building, and upon which a piece of material such as an air conditioning unit is mounted” (column 1, lines 11-14). The Streiter device can be of sheet metal or fiberglass (column 1, lines 21 and 22). As explained in column 3, the components of the device are formed by bending, and are attached together at their seams by welding (lines 14-21). There is no teaching in Streiter that this metal device is entirely seamless. Nor would this appear to be a requirement since the device is not a flashing surrounding an opening in a roof, and

there would seem to be no need for the points of joinder between the various components of the device be leak-proof, much less seamless.

The examiner concludes, on the basis of Streiter's disclosure, that it would have been obvious to one of ordinary skill in the art to further modify the DeBlock flashing, now made of seamless plastics material by virtue of the teachings of Hoy, by making it of metal. The appellant challenges this conclusion, arguing that no evidence has been provided that seamless metal flashings were known in the art or that there was a reasonable expectation of success that metal flashings could be made in such a manner (Brief, pages 4 and 5). We also note that the presence of seams in the prior art flashings was pointed out by the appellant on page 2 of the specification as giving rise to problems that are solved by the present invention. The examiner's response was that forming metal by the process of stamping was a well known technique in the prior art, and that there was no need for evidence to be provided on this point because the manner of achieving seamless construction was not recited in the claim.

The mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Considering that Streiter does not disclose or teach a flashing-type structure that is of seamless metal construction, we cannot agree with the examiner that it would have been obvious to make the DeBlock flashing of seamless metal construction, particularly in the light of



the appellant's unanswered challenge to the examiner to produce evidence that it was known to manufacture such devices of metal without seams.

It therefore is our conclusion that the combined teachings of DeBlock, Hoy and Streiter fail to establish a prima facie case of obviousness with regard to the subject matter recited in claim 1, and we will not sustain this rejection.

Claims 2-4 and 6-9 stand rejected as being unpatentable over DeBlock in view of Hoy, Streiter and Blackmon. Claim 2 adds to claim 1 the requirement that the metal flashing have a skirt formed with at least one rib, and independent claim 6 recites a metal flashing having a skirt formed with at least one strengthening anomaly. The examiner looks to Blackmon for a teaching of providing ribs extending outwardly to reinforce a plate, concluding that it would have been obvious to provide the flashing of DeBlock, as modified by Hoy and Streiter, with such a feature. The appellant argues that Blackmon is non-analogous art, a conclusion with which we agree.

The test for analogous art is first whether the art is within the field of the inventor's endeavor and, if not, whether it is reasonably pertinent to the problem with which the inventor was involved. See In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). A reference is reasonably pertinent if, even though it may be in a different field of endeavor, it logically would have commended itself to an inventor's attention in considering his problem because of the matter with which it deals. See In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992).

Blackmon is directed to a light weight reflector facet for a solar concentrator, and so it clearly is not within the field of the appellant's endeavor. The examiner points out that Blackmon discloses a plurality of reinforcing ribs 40 (Answer, page 4). The fact of the matter is that the ribs to which the examiner refers are shown in Figure 5 in the context of constituting a portion of a multi-element frame adhered to the back of a planar glass mirror 12 so that it is properly supported over its entirety. It is our view that Blackmon would not logically have commended itself to the attention of an inventor who is dealing with the problem of constructing a flashing that surrounds the opening in a roof through which a tubular skylight extends. Blackmon therefore fails to meet either of the tests necessary to qualify as analogous art and cannot properly be combined with the other references. This being the case, the rejection of claims 2-4 and 6-9 will not be sustained.

Moreover, as we concluded above, the subject matter of claim 1 is not rendered obvious by the combined teachings of DeBlock, Hoy and Streiter, and without a reference which overcomes the deficiency in combining those three references in such a manner as to render the subject matter of claim 1 obvious, the rejection of dependent claims 2-4 also cannot be sustained. We might add that even if Blackmon were considered to be a proper reference, its teachings would not overcome the problem with combining the other three references in the manner proposed by the examiner.

Additionally with regard to claim 6, which does not require that the flashing be seamless, even if it were considered that DeBlock, Hoy and Streiter would have suggested the metal flashing and metal skirt, the disqualification of Blackmon as a reference leaves the rejection absent any teaching that would have suggested providing the skirt with a reinforcing anomaly, and therefore a prima facie case of obviousness has not been established.

#### SUMMARY

None of the rejections are sustained.

The decision of the examiner is reversed..

IRWIN CHARLES COHEN  
Administrative Patent Judge

NEAL E. ABRAMS  
Administrative Patent Judge

JEFFREY V. NASE  
Administrative Patent Judge

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